

Please cancel claims 1, 2, 4-7 and 9-18 without prejudice or disclaimer.

Please add the following claims:

-- 21. An isolated polynucleotide comprising a nucleotide sequence encoding a polypeptide, selected from the group consisting of:

- (a) amino acids 1 to 45 of SEQ ID NO: 13;
- (b) amino acids 25 to 45 of SEQ ID NO: 13;
- (c) amino acids 74 to 86 of SEQ ID NO: 13;
- (d) amino acids 77 to 97 of SEQ ID NO: 13;
- (e) amino acids 25 to 444 of SEQ ID NO: 13;
- (f) amino acids 1 to 444 of SEQ ID NO: 13;
- (g) SEQ ID NO: 2;
- (h) SEQ ID NO: 3;
- (i) SEQ ID NO: 4;
- (j) SEQ ID NO: 5;
- (k) SEQ ID NO: 6;
- (l) SEQ ID NO: 7 and
- (m) SEQ ID NO: 8.

22. The polynucleotide of claim 21 encoding a polypeptide comprising amino acid residues 25 to 45 of SEQ ID NO: 13.

23. The polynucleotide of claim 21 encoding a polypeptide comprising amino acid residues 74 to 86 of SEQ ID NO: 13.

24. The polynucleotide of claim 21 encoding a polypeptide comprising amino acid residues 77 to 97 of SEQ ID NO: 13.

25. The polynucleotide of claim 21 encoding a polypeptide comprising amino acid residues 1-444 of SEQ ID NO: 13.

26. The polynucleotide of claim 21 encoding a polypeptide comprising SEQ ID NO: 2.

27. The polynucleotide of claim 21 encoding a polypeptide comprising SEQ ID NO: 3.

28. The polynucleotide of claim 21 encoding a polypeptide comprising SEQ ID NO: 4.

29. The polynucleotide of claim 21 encoding a polypeptide comprising SEQ ID NO: 5.

30. The polynucleotide of claim 21 encoding a polypeptide comprising SEQ ID NO: 6.

31. The polynucleotide of claim 21 encoding a polypeptide comprising SEQ ID NO: 7.

32. The polynucleotide of claim 21 encoding a polypeptide comprising SEQ ID NO: 8.

33. The polynucleotide of claim 21 which is DNA.

34. The polynucleotide of claim 21 which is RNA.

35. The polynucleotide of claim 21, wherein said polynucleotide encodes a polypeptide which is a fusion protein.

36. The polynucleotide of any one of claims 25-34, wherein said polynucleotide encodes a fusion protein.

37. The polynucleotide of any one of claims 25-34, wherein said polynucleotide encodes a polypeptide with a deletion of the N-terminal, C-terminal or internal regions.

38. A vector comprising the polynucleotide of any one of claims 21-35.

39. The vector of claim 38, wherein said vector comprises a transcription unit.

40. A host cell comprising the polynucleotide of any one of claims 21-35.

41. The host cell of claim 40, selected from the group consisting of Sf9 cells, *E. coli*, 293 human embryonic kidney cells, COS-1 cells and CHO cells.

42. A method of producing a protein that comprises culturing the host cell of claim 40 under conditions such that said protein is expressed, and recovering said protein.

43. An isolated polynucleotide which hybridizes under the conditions of incubation at 42° C in a solution comprising: 6x SSC, 5x Denhardt's solution containing 0.1% SDS and 0.1 mg/ml denatured salmon sperm DNA, followed by washing in 2x SSC and 0.5% SDS at 42° C, to a polynucleotide encoding a polypeptide selected from the group consisting of:

- (a) amino acids 1 to 45 of SEQ ID NO: 13;
- (b) amino acids 25 to 45 of SEQ ID NO: 13;
- (c) amino acids 74 to 86 of SEQ ID NO: 13;
- (d) amino acids 77 to 97 of SEQ ID NO: 13;
- (e) amino acids 25 to 444 of SEQ ID NO: 13;
- (f) amino acids 1 to 444 of SEQ ID NO: 13;
- (g) SEQ ID NO: 2;
- (h) SEQ ID NO: 3;
- (i) SEQ ID NO: 4;

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- (j) SEQ ID NO: 5;
- (k) SEQ ID NO: 6;
- (l) SEQ ID NO: 7 and
- (m) SEQ ID NO: 8.

44. The polynucleotide of claim 43 encoding a polypeptide comprising amino acid residues 25 to 45 of SEQ ID NO: 13.

45. The polynucleotide of claim 43 encoding a polypeptide comprising amino acid residues 74 to 86 of SEQ ID NO: 13.

46. The polynucleotide of claim 43 encoding a polypeptide comprising amino acid residues 77 to 97 of SEQ ID NO: 13.

47. The polynucleotide of claim 43 encoding a polypeptide comprising amino acid residues 1-444 of SEQ ID NO: 13.

48. The polynucleotide of claim 43 encoding a polypeptide comprising SEQ ID NO: 2.

49. The polynucleotide of claim 43 encoding a polypeptide comprising SEQ ID NO: 3.

50. The polynucleotide of claim 43 encoding a polypeptide comprising SEQ ID NO: 4.

51. The polynucleotide of claim 43 encoding a polypeptide comprising SEQ ID NO: 5.

52. The polynucleotide of claim 43 encoding an polypeptide comprising SEQ ID NO: 6.

53. The polynucleotide of claim 43 encoding an polypeptide comprising SEQ ID NO: 7.

54. The polynucleotide of claim 43 encoding an polypeptide comprising SEQ ID NO: 8.

55. The polynucleotide of claim 43 which is DNA.

56. The polynucleotide of claim 43 which is RNA.

57. The polynucleotide of claim 43, wherein said polynucleotide encodes a polypeptide which is a fusion protein.

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58. The polynucleotide of any one of claims 47-56, wherein said polynucleotide encodes a fusion protein.

59. The polynucleotide of any one of claims 47-56, wherein said polynucleotide encodes a polypeptide with a deletion of the N-terminal, C-terminal or internal regions.

60. A vector comprising the polynucleotide of any one of claims 43-57.

61. The vector of claim 60, wherein said vector comprises a transcription unit.

62. A host cell comprising the polynucleotide of any one of claims 43-57.

63. The host cell of claim 62, selected from the group consisting of Sf9 cells, *E. coli*, 293 human embryonic kidney cells, COS-1 cells and CHO cells.

64. A method of producing a protein that comprises culturing the host cell of claim 62 under conditions such that said protein is expressed, and recovering said protein.

65. An isolated polynucleotide, or an isolated complementary polynucleotide, which hybridizes under the conditions of incubation at 42° C in a solution comprising: 6x SSC, 5x Denhardt's solution containing 0.1% SDS and 0.1 mg/ml denatured salmon sperm DNA, followed by washing in 2x SSC and 0.5% SDS at 42° C, to said isolated polynucleotide selected from the group consisting of:

- (a) nucleotides 73 to 207 of SEQ ID NO: 12;
- (b) nucleotides 73 to 1404 of SEQ ID NO: 12;
- (c) nucleotides 73 to 3085 of SEQ ID NO: 12;
- (d) nucleotides 145 to 207 of SEQ ID NO: 12;
- (e) nucleotides 292 to 329 of SEQ ID NO: 12;
- (f) nucleotides 301 to 362 of SEQ ID NO: 12;
- (g) nucleotides 145 to 1404 of SEQ ID NO: 12;
- (h) nucleotides 145 to 3085 of SEQ ID NO: 12;
- (i) nucleotides 1 to 1404 of SEQ ID NO: 12 and
- (j) nucleotides 1 to 3085 of SEQ ID NO: 12;

66. The isolated polynucleotide of claim 65 comprising nucleotides 73 to 207 of SEQ ID NO: 12, or said isolated complementary polynucleotide that hybridizes to the same.

67. The isolated polynucleotide of claim 65 comprising nucleotides 73 to 1404 of SEQ ID NO: 12, or said isolated complementary polynucleotide that hybridizes to the same.

68. The isolated polynucleotide of claim 65 comprising nucleotides 73 to 3085 of SEQ ID NO: 12, or said isolated complementary polynucleotide that hybridizes to the same.

69. The isolated polynucleotide of claim 65 comprising nucleotides 145 to 207 of SEQ ID NO: 12, or said isolated complementary polynucleotide that hybridizes to the same.

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70. The isolated polynucleotide of claim 65 comprising nucleotides 292 to 329 of SEQ ID NO: 12, or said isolated complementary polynucleotide that hybridizes to the same.

71. The isolated polynucleotide of claim 65 comprising nucleotides 301 to 362 of SEQ ID NO: 12, or said isolated complementary polynucleotide that hybridizes to the same.

72. The isolated polynucleotide of claim 65 comprising nucleotides 145 to 1404 of SEQ ID NO: 12, or said isolated complementary polynucleotide that hybridizes to the same.

73. The isolated polynucleotide of claim 65 comprising nucleotides 145 to 3085 of SEQ ID NO: 12, or said isolated complementary polynucleotide that hybridizes to the same.

74. The isolated polynucleotide of claim 65 comprising nucleotides 1 to 1404 of SEQ ID NO: 12, or said isolated complementary polynucleotide that hybridizes to the same.

75. The isolated polynucleotide of claim 65 comprising nucleotides 1 to 3085 of SEQ ID NO: 12, or said isolated complementary polynucleotide that hybridizes to the same.

76. The polynucleotide of claim 65 which is DNA.

77. The polynucleotide of claim 65 which is RNA.

78. The polynucleotide of claim 65, wherein said polynucleotide encodes a polypeptide which is a fusion protein.

79. The polynucleotide of any one of claims 66-77, wherein said polynucleotide encodes a fusion protein.

80. The polynucleotide of any one of claims 66-77, wherein said polynucleotide encodes a polypeptide with a deletion of the N-terminal, C-terminal or internal regions.

81. A vector comprising the polynucleotide of any one of claims 65-78.

82. The vector of claim 81, wherein said vector comprises a transcription unit.

83. A host cell comprising the polynucleotide of any one of claims 65-78.

84. The host cell of claim 83, selected from the group consisting of Sf9 cells, *E. coli*, 293 human embryonic kidney cells, COS-1 cells and CHO cells.

85. A method of producing a protein that comprises culturing the host cell of claim 83 under conditions such that said protein is expressed, and recovering said protein.

86. An isolated polynucleotide, or an isolated complementary polynucleotide, which hybridizes under the conditions of incubation at 42° C in a solution comprising: 6x SSC, 5x Denhardt's solution containing 0.1% SDS and 0.1 mg/ml denatured salmon sperm

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DNA, followed by washing in 2x SSC and 0.5% SDS at 42° C, to said isolated polynucleotide selected from the group consisting of:

- (a) SEQ ID NO: 9;
- (b) SEQ ID NO: 10 and
- (c) SEQ ID NO: 11.

87. An isolated polynucleotide of claim 86 which hybridizes to SEQ ID NO: 9, or said isolated complementary polynucleotide that hybridizes to the same.

88. An isolated polynucleotide of claim 86 which hybridizes to SEQ ID NO: 10, or said isolated complementary polynucleotide that hybridizes to the same.

89. An isolated polynucleotide of claim 86 which hybridizes to SEQ ID NO: 11, or said isolated complementary polynucleotide that hybridizes to the same.

90. The polynucleotide of claim 86 which is DNA.

91. The polynucleotide of claim 86 which is RNA.

92. The polynucleotide of claim 86, wherein said polynucleotide encodes a polypeptide which is a fusion protein.

93. The polynucleotide of any one of claims 87-91, wherein said polynucleotide encodes a fusion protein.

94. The polynucleotide of any one of claims 87-91, wherein said polynucleotide encodes a polypeptide with a deletion of the N-terminal, C-terminal or internal regions.

95. A vector comprising the polynucleotide of any one of claims 86-92.

96. The vector of claim 95, wherein said vector comprises a transcription unit.

97. A host cell comprising the polynucleotide of any one of claims 86-92.

98. The host cell of claim 97, selected from the group consisting of Sf9 cells, *E. coli*, 293 human embryonic kidney cells, COS-1 cells and CHO cells.

99. A method of producing a protein that comprises culturing the host cell of claim 97 under conditions such that said protein is expressed, and recovering said protein.

100. A polynucleotide comprising the sequence of SEQ ID NO: 9.

101. A polynucleotide comprising the sequence of SEQ ID NO: 10.

102. A polynucleotide comprising the sequence of SEQ ID NO: 11.--

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